

ATRICHOLAEELAPS TRAUBI AND A. CHINCHILLULAE, FROM CALLOSCIURIUS AND THE CHINCHILLA RESPECTIVELY

(ACARINA)

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The writer recently received for study two shipments of foreign mites belonging to the genus *Atricholaelaps*. One lot consisted of three specimens from Burma and the other of thirty-one specimens from Peru. The Burma specimens are new and are described below as *Atricholaelaps traubi*. The Peruvian specimens are part of a lot resulting from a collecting trip into the high Andes by O. P. Pearson of Harvard University. This lot contained two species from five different species of mammalian hosts. One species, from the chinchilla, is undoubtedly new and is described below as *A. chinchillulae*. The other species I believe to be *Atricholaelaps glasgowi*.

***Atricholaelaps glasgowi* (Ewing)**

Ex *Phyllotis arenarius*. 16,000 ft. Caccachara, 50 miles S. W. of Ilave, Peru, Sept. 11, 1946. O. P. Pearson, collector. 7 female specimens.

Ex *Punomys lemninus*. Same locality and collector as above but no date given. 2 females.

Ex *Auliscomys boliviensis*. October 5, 1946, otherwise same as above. 1 female.

Ex *Chracomys pulcherrimus*. 16,000 ft. Caccachara, 50 miles S. W. of Ilave, Peru. October 5, 1946. O. P. Pearson, collector. 2 females.

This is a very widespread mite and occurs on a great many hosts. I do not consider the above host and locality records unusual. In a paper soon to be published I will endeavor to give the complete synonymy of this species, its known hosts and distribution, its size variations, and illustrations of some of its variant forms.

***Atricholaelaps traubi*, new species**

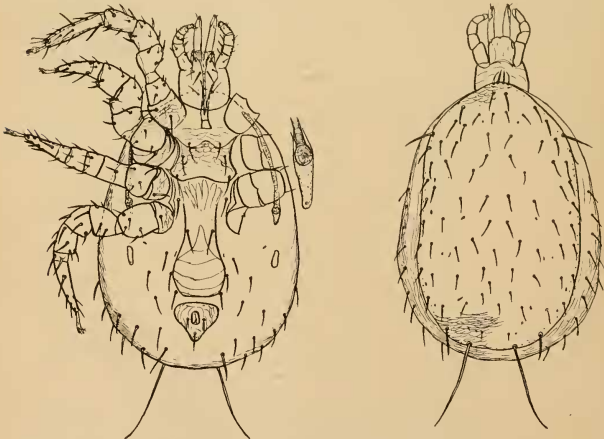
(Fig. 1)

Female.—A medium sized, straw-colored, broadly oval mite measuring about 600 μ long by 450 μ wide.

Ventral side.—Number and arrangement of setae and plates typical for the genus. Sternal plate with the usual three pairs of setae and two pairs of pores. The setae are of medium length and thickness. The anterior margin of the plate seems to dip down to the first pair of pores, forming a biemarginate anterior margin and leaving the anterior sternal setae well removed from the plate. The presternal area is lightly sclerotized as is usual for the genus. The plate measures 67 μ long at the mid line by 103 μ wide at the narrowest point. The endopodal setae are similar to the sternal setae and lie adjacent to the endopodal plates, which are of normal size and density. The genitoventral plate is quite large and

extends close to the anal plate. The posterior margin is fairly truncate. Its shape and pattern of lines may be seen in Figure 1. It measures 267μ from the posterior margin of the sternal plate, by 133μ wide at the widest point. The anal plate is triangular with rounded corners. The anal pore is about in the center of the plate. The three anal setae are of equal length and the paired setae are opposite the middle of the pore. The plate is 71μ long from the anterior margin to the base of the posterior seta by 86μ wide. The usual metapodal plates are present, the prominent one being narrowly oval in shape, as shown. The five pairs of setae flanking the genitoventral plate are smooth and slightly longer than those of the sternal plate. There are from three to five additional pairs of setae on the non-sclerotized portion of the ventor. These setae are slightly feathered along the outer edge, and, except for the innermost pair, are equal in length to the others. The innermost pair is heavier and about twice as long as the others. The tritosternum is typical for the genus and essentially as shown in Fig. 3b.

Dorsal side.—The dorsal plate is ellipsoid in outline, with poorly defined shoulders. It covers all but a narrow periphery of the dorsum, bears a network of fine lines, about 40 pairs of setae, and 12 pairs of pores, including the pair of slit-like pores at the anterior end. The anterior marginal setae are longer and heavier than the mid-dorsal ones and slightly feathered. There is a prominent, slightly feathered, marginal seta each side in the latitude of leg II. As is usual for the genus, the penultimate pair of setae is weak and short. The posterior pair, however, is unusually long, as figured. The dorsal plate is 573μ long and 367μ wide.



Text Fig. 1. *Atricholaclaps traubi*, ventral and dorsal view of female.

Gnathasoma (Fig. 3a).—This is rather short and broad but has no unusual features except for the lingula and its attendant structures. This is rather broad, with an expanded, trigonal apex, as shown in Fig. 3a. The hypostome has the usual 6 rows of 4-5 teeth each. The epistome is composed of a membranous, transparent anterior portion rising from a truncate, more sclerotized base. The chelae are normal, that is to say, the *dentis mobilis* is slightly the larger, has two teeth near the apex, and has a crown of setae at its base. The *dentis fixitis* has one or two teeth (in the specimens available, the chelae were not in position to determine this exactly) and a slightly inflated, nearly straight seta near the apex.

Legs.—The legs are rather short, with normal setation. The coxal setae are slender but quite long. The claws on all legs are quite small. Femora I and II do not have long dorsal setae. Measuring from the base of the coxa to the tip of the tarsus (exclusive of the claw) leg I is about 413 μ long, leg IV 480 μ long. Tarsus I is 147 μ long.

Stigma and peritreme.—The stigma is at a level between coxae III and IV. The narrow and only slightly sinuate peritreme extends to the middle of coxa I. The peritrematalia is rather narrow, slightly incurved and approximately twice the length of the stigmal pore. Male and immature stages remain unknown.

Type.—The species was described from three specimens, separately mounted. The three slides have been designed co-types, two are in the U. S. National Museum, one in the collection of the author.

Host. *Callosciurus q. quinquestratus*.

Locality. Myitkyina, Burma. Collected September 10, 1945 by Stager and Traub.

The rather long genitoventral plate and the slightly inflated *pilus dentilus* are somewhat as in *Atricholaelaps megaventralis* Strandtmann but the long posterior setae immediately differentiate this from the previously described *megaventralis*. The eroded anterior margin of the sternal plate is very like *Haemolaelaps omnitectus* Vitzthum but that species has two pairs of long posterior setae and lacks the strong seta on the dorsum above leg II. The only other species with unusually long posterior setae is *Haemolaelaps mesopicus* Radford. Here again there are four instead of two such setae and also the sternal plate is normal and the anal plate much more oval.

The species is named for Major Robert Traub, eminent young siphonapterist who was one of the collectors of the species.

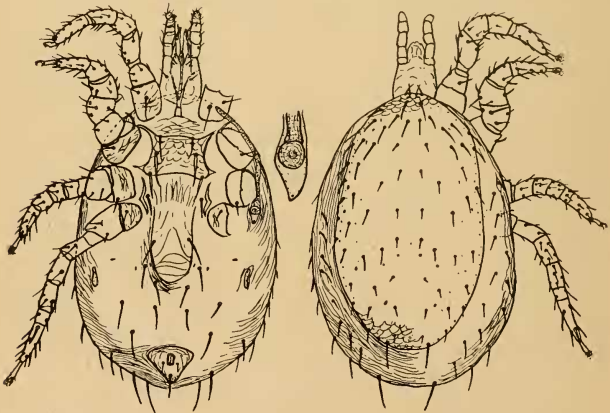
***Atricholaelaps chinchillulae*, new species**

(Fig. 2)

Female.—A medium sized, yellowish-brown mite measuring about 700 μ long by 500 μ wide.

Ventral side.—The sternal plate is about $95\ \mu$ long by $117\ \mu$ wide at the narrowest point. The sternal setae are rather long and noticeably broadened basally, especially the two posterior ones. The presternal area is lightly sclerotized, as usual. The endopodal setae and plates are of the usual size and shape. The genitoventral plate is about $270\ \mu$ long by $99\ \mu$ wide. The distance from the genitoventral to the anal plate averages about $150\ \mu$. The triangular anal plate is noticeably flattened on top, the anal pore is nearer the anterior margin, and the paired setae are below a line through the middle of the anal pore. The odd seta is longer than the two paired. The metapodal plates are arranged as usual. The large one is quite narrow and slightly bent. The ventral setae, normally 7 pairs, are fairly long, slender and smooth. The tritosternum is normal for the genus (See Fig. 3b). The laeina branch above the base and each is covered with rather short, abundant, closely appressed cilia, which generally is difficult to resolve distinctly. The stigma is opposite coxae III and IV. The rather wide peritreme reaches to the middle of coxa I. The peritrematalia is triangular, obtusely pointed and about equal in length to the diameter of the stigma.

Dorsum.—The dorsal plate is ovoid, with weak shoulders and covers most of the dorsum but leaves a noticeable area uncovered, as shown. There are about 39 pairs of setae and 11-12 pairs of pores. The anterior and peripheral setae are longest and also slightly broadened basally. The mid-dorsal setae are slender and rather weak and short; the outer ones are very slightly feathered. The plate measures $620\ \mu$ long by $396\ \mu$ wide.

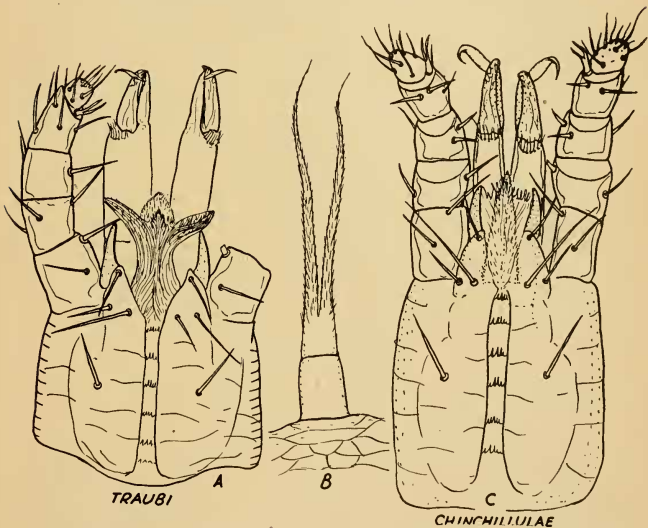


Text Fig. 2. *Atricholaclaps chinchillulae*, ventral and dorsal view of female.

The *gnathasoma* (Fig. 3b) has no unusual features. The palp-coxal setae are about half as long as the inner of the more anterior, paired setae. The lingula is relatively short and acutely triangular. The epistome has the transparent anterior membrane as is usual in this genus. The chelae are normal and as figured. The *pilus dentilis* is distinctly inflated and has a long, recurved appendiculation.

Legs.—The legs are relatively short, and slender. Leg IV measures only 522 μ , considerably less than the length of the dorsal plate. The setation is normal, the setae being slender, straight and smooth, with the strongest setae on tarsi II, III, and IV. Setae on coxae I to III are rather long and slender. As usual, the single seta on coxa IV is shorter. Femora I and II have each a pair of longer setae dorsally, which is rather unusual for mites of this genus.

Malc.—One male specimen was contained in the collection. Unfortunately, it is not in proper condition either for illustration or for critical diagnosis. One notes, however, that the lingula is quite like that of the female and that the chela is typical of the genus, that is, it is composed of a short, weak *digitus fixitus* and a long, incurved *digitus mobilis* and its attachant spermatophore carrier.



Text Fig 3. A. *Gnathasoma* of *Atricholaclaps traubi*, ventral view.
 B. Tritosternum of *A. traubi*.
 C. *Gnathasoma* of *A. chinchillulae*, ventral view.

Immatures.—One deutonymph is in the collection, but it is in very poor condition.

Types.—Described from 18 females and the male and deutonymph mentioned above, all with the same data. One of the females has been designated the holotype and all others as paratypes. The holotype and several paratypes are in the collection of the Museum of Comparative Zoology, Harvard University. Several paratypes also are in the U. S. National Museum.

Host. *Chinchillula sahamae*, the chinchilla.

Locality.—16,000 ft. elevation, Caccachara, 50 miles S. W. of Ilave, Peru. October 5 & 7, 1946. O. P. Pearson, collector.

This mite may be distinguished from others of the genus by the distinctly flattened anterior margin of the anal plate, the strong and rather broadened sternal setae, and the comparatively short, triangular peritremitalia.

Acknowledgements: I want to express my indebtedness to Dr. Edw. W. Baker of the U. S. National Museum for making the slides available and for other pertinent assistance, and also to Olin E. Hunt of Houston, Texas, for valuable assistance with the literature and for other criticisms.

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BOOK REVIEW

HEREDITY, by A. Franklin Shull, Professor of Zoology, University of Michigan. Fourth edition. 8 vo., cloth, 311 pp. 152 figs., N. Y., and London, McGraw-Hill Book Co., 1948, \$4 00.

The sections of this newly issued revision that are likely to be of greatest usefulness to entomologists, other than the general treatment therein of fundamental principles of heredity as applicable to animal and plant life, are those that pertain to heredity in relation to resistance of plants to insect pests, the influence of light and other factors on the development of insect wings, discussion of experiments on the change or suppression of characters in butterflies, and, perhaps most impor-